

Oppression of the Web-luser

Due to a trend in society people understand less and less of the hardware and software they use. For a few decades ways of interacting with software and hardware have simplified to a point where anybody can easily submit their content to systems that make that content automatically known to a large part of the world.¹ However each simplification in place on hardware or software hides a potential of those systems. People have become unaware of the possibilities of the systems they operate. This lack of awareness has an effect on the choices that they make regarding their use of the systems. These unaware choices, that are done each time a user interacts with a system, may lead to unwanted behavior on the side of the user without them realizing it. I write this essay to unveil such behavior.

If we would compare computer users we will most certainly notice differences in their user level. The user level reflects how well an user understands certain hardware or software.² There are no clear criteria to classify anybody's user level, but it speaks for itself that the creator of a piece of software can do much more with it than somebody who uses it for the first time. This makes the creator's user level a lot higher. The most extreme novice user is called luser and is best characterized by somebody who fails to think for two seconds or look into the documentation.³ The most extreme expert user is called a hacker. Most people will associate hackers with criminals or terrorists, but in my opinion hacking is best characterized by the freewheeling intellectual exploration of the highest and deepest potential of computer systems.⁴ This exploration of possibilities called hacking is not necessarily against the law and if it is it could still be done with good intention. As we shall see in this essay it's also possible to hack a system legally with bad intentions. Therefore looking at hackers from a legal point of view is not very helpful and this is why in this essay I make the division between white and black hackers instead. The two extremes in user level (the luser and the hacker) are rare these days. Everybody who needs to work with computers has had enough practice since the 80's to be familiar with Graphical User Interfaces and do not need constant (repetitive) assistance. At the same time the growing experience in how to build solid systems make it much harder to play with a system and understand it better than the creators do. Subsequently there's a huge gray area between luser and hacker, but most of us will reside on the luser side of the spectrum. This is because most people that use hardware or software are not really interested in what is under the hood. Furthermore because of the need to specialize in order to fully understand a system a person is more likely to be hacker of some hardware and software and a luser of the rest. In a way this particular division of user levels in society leads to an elite of (black)hackers that holds power over a large group of unaware lusers.

A (black)hacker who has power over a luser just because he knows more about the system they use separately seems far fetched. It would indeed be completely silly to say such a thing from text processing software. There is no epic text processing user who controls the text processing of other users just by using the text processing software. This is simply impossible because the computers on which the software runs are not connected through their use of the software. It becomes a totally different story when using the Web, which is software that runs on the hardware called the Internet. The Web is designed to share information with anyone else, anywhere.⁵ This is exactly why we use it, but there's a difference in how people use it. While Web-hackers obey the mantra to never trust the network⁶ and therefore try to keep it in check; the Web-lusers seem to take things less seriously, leaving

1 Telekomunist manifesto p. 16

2 Dream machines

3 Hackers Dictionary

4 Chapter 5 Hacking Alexander (p.6 to p.8)

5 Long live the web (p.1)

6 PHP en MySQL hoofdstuk 29

opportunities for their exploitation.

To understand how a systematic exploitation of Web-users can exist on an application made to share information we need to understand where information can be used for. There are several kinds of information, some information is digital, some is not. It's not my intention to give a complete overview of all kinds of information and it's applications. I will focus on two types of information uses that are of concern for this essay.

The first type of information use I will call the traditional application which has been around long before the Web. Plato was the first to write about this specific kind of information use. After a war the Athens of Plato showed big defaults in the ruling class like scandals, corruption and (military) incompetence. Plato thought that Athens could overcome such difficulties in the future if the Athenian boys were taught virtues for leadership next to wrestling and swimming.⁷ Simply said Plato was looking for ways to use information as a means to develop people in their thinking and behavior. By doing this Plato was confronted with the problem how to verify information and truly know things instead of believing things are true, because they have never proved wrong. What it means to know is never really agreed upon and has been a subject for philosophical debate ever since Plato brought up the issue.⁸ Even though it is very hard to be sure what the value of information is while transferring it to a next generation I presume Plato informed the Athenian youth about his beliefs on virtues the same way teachers do that to kids today. The traditional use of information today is then summed up by the application of information in the educational system, as long as we include in that system the adults who learn new things for leisure or professional purposes.

Of course approaching the traditional information use through new media would make it seem modern, but what I call the modern information use is quite different from such uses. First of all I consider modern information to be unlocked from databases. A database is a standalone application that manages data storage.⁹ It helps me to think about a database as the digital variant of a library card holder. The database holds practically an infinite amount of cards with information described on it. In the case of a library database the cards (which are called records) might contain the title of the book, the position of the book on the shelf, the amount of copies, whether it is currently available, in which categories the book has been classified and all this together with a history of loans from the past 10 years. The beauty of a database is that users trying to subtract information from a database are not confronted with A2 size cards that contain all information gathered since the book was available. Instead an intelligent and capable database user can subtract only the information that he or she needs by using a query. A query tells the database what the user is looking for in a code like language. These lines of computer code can get very complicated, but will result in manageable proportions of information that can be used for specific (often commercial) goals. Such a use for instance is done by super markets, who monitor the buying behavior of all their clients and save this information in a database. It is impossible for a human to make sense out of all this information, but with the help of a query it is relatively easy for such super markets to say in which branch people are frequently buying fruit and in which branches people aren't. The management can participate on the information that rolls out of the database by shipping the best fruits to the branch where clients will be likely to enjoy the best quality fruits the most. In short the modern information use can help companies to optimize their profits by observing their clients and act on how they behave.¹⁰

7 Plato and the internet (p.10)

8 Plato and the internet (p.13)

9 PHP5 en MySQL hoofdstuk 12

10 Plato and the internet p.48

A big part of the knowledge economy consists of knowledge derived from the modern information use, that generates economic value, and far lesser economic value comes from the traditional information use. Especially when the traditional information application concerns subjects that are not adding to the know-how relevant for companies, the added economic value of this use is almost nothing.¹¹ Very similar to the super market example in the previous paragraph, the Web is used by black-Web-hackers (who probably work for big companies) to monitor the behavior of Web-lusers who are also using the Web. To illustrate this a bit more I will describe how a Dutch super market called Albert Heijn used to monitor their customers and compare their former methods with the methods of the black-Web-hackers. Albert Heijn introduced a free card called the bonuskaart that would enable customers to get discounts on anything that was on sale. If you didn't have such a card, you would not get a discount which made it stupid not to get one. However the card not only granted the right for discount it would also save your shopping behavior in a huge database every time you used it. Albert Heijn then could use your information to optimize their distribution and marketing. You might argue that Albert Heijn trades your information for the discount on their products, but the value of this discount in fact comes from your own pocket, since the products that are on sale needs to get dumped for lower prices anyway, because they are almost overdue. While Albert Heijn recently changed its policy¹² and today in practice gives discounts without the use of a bonuskaart, the methods used by Albert Heijn are in use on the Web to this day. On the Web users are not given a bonuskaart but cookies. These cookies are files that automatically get installed on your computer when visiting sites and allow for tracking anybody's Web behavior.¹³ An example is the site of 9292ov which installs three different kinds of cookies when you try to find out how to travel from A to B by Dutch public transport. Again people can argue that allowing these cookies is a way to pay for the free services that 9292ov provides, but this argument does not hold. After the 9292ov site was produced and marketed the costs to maintain and distribute the site are close to zero in comparison to the profit they make by providing personal information to third-party companies and since 9292ov has been running for a while enough money is generated to allow the site to run for years, while all the money generated in these years will be pure profit for the owners of 9292ov. None of this profit will come to the benefit of the Web-luser, who in fact rents out his or her harddisk space for free for the benefit of somebody she or he will probably never meet in person. Just by allowing cookies the Web-luser is producing content that 9292ov can sell in the same manner that YouTube sold content to Google without sharing a dime with the people who worked to create the content.¹⁴ It is not wrong to make our society work on a basis of knowledge economy, but a reward should be given to the Web-lusers that are doing all the work.

Unfortunately the oppression of the Web-luser does not stop with not giving what they are due, but continues by denying Web-lusers what Web-lusers want. I'm aware that I shouldn't be talking for large groups of people, but I think it's safe to say that a large part of society wants to grow as a human being. This idea of what personal growth is is so diverse that I will not get to specific definitions, but it's a commonly accepted idea that growth is the result of stepping from your comfort zone into a risk zone. In other words to go from what you know into what you don't know, without going too far into the unknown, in order to learn some of the things you don't know and thus becoming comfortable with what you didn't know previously.¹⁵ The process of adventuring into the unknown to learn something new and the experience of excitement that comes with the confrontation of new things is at best slowed down by the way some black-Web-hackers have set up the playing field for Web-lusers on the Web. Again the ill use of cookies is to blame, because the behavior profiles that are generated in the way

11 http://en.wikipedia.org/wiki/Knowledge_economy

12 <http://nl.wikipedia.org/wiki/Bonuskaart>

13 http://en.wikipedia.org/wiki/HTTP_cookie

14 The Telekommunist manifesto (p.17)

15 http://en.wikipedia.org/wiki/Comfort_zone

described above will be presented back to you, without adding anything new and exciting. For example if you visit a site that sells a certain phone, this phone will be advertised to you on a lot of sites you visit because through cookies the Web remembers that you showed interest in buying such phones.¹⁶ As we tell more and more about ourselves to the Web, not just by visiting pages but also by indicating what we like on Facebook, the more and more the Web will give information that fits the target group people have been classified to because what they did previously. This way you're likely to get stuck in your own habits and fields of interest, instead of exploring the new, because the Web starts functioning like a mirror that is telling you what you already know, which opposes how a lot of Web-lusers would like the Web to function.¹⁷

So in the end Web-lusers are shipped off with the Web staying boringly the same while settling for the cheapest price to compensate for that loss. Fortunately it doesn't have to be that way. When the Web takes a turn we don't want it to make we can change that because we design the way the Web functions.¹⁸ I can imagine somebody will create a system that simplifies cookie management. If a whole group of Web-lusers use the same cookie system this system could in theory send automated emails to the Internet companies that get their profit from inserting cookies on Web-luser harddrives. Such emails could demand payment from these companies and each deposit resulting from these messages can be distributed to the Web-lusers. The code I subscribed should be available to all Web-hackers to show Web-lusers get what they are due. At the same time it should be a very solid secure system. This might prove a difficult contradiction to overcome and another problem is how to calculate a reasonable price for cookie rent, especially if multiple servers come into existence. Replacing the server with a representative that will bargain with the companies to avoid these issues leads to a form of an autocratic class, that has failed to function in the past.¹⁹ For the oppression to disappear completely the functioning of such a system alone is not yet enough. It will not solve the problem of the Web not working as a tool for traditional information. When cookies are not set the adds on webpages will work more like TV commercials than showing truly new and challenging content. So whatever system is simplifying cookie management should also manage all ad content. The problem here is that it is unclear which information will be exciting and which will not. Based on social network science in combination with the definition of personal growth²⁰ one would expect that people are most interested in and can learn most from information delivered by people who your friends know, but you don't know yourself.²¹ All in all it might prove difficult to setup systems that simplify for the Web-luser the way to use the Web unoppressed. Therefor the Web-luser is best off in the short term with informing him/her self just a little to use slightly enhanced cookie management and ad blocking software existing today.

16 http://en.wikipedia.org/wiki/HTTP_cookie

17 Cult of the Amateur p.6 and p.7

18 Long Live The Web p.2

19 Telekommunist (p.?)

20 http://en.wikipedia.org/wiki/Comfort_zone

21 Connected! p.175